

Atty. Docket No. CA1464
PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/964,129

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A system, comprising:

a connection to a ~~virtual private network~~;

a router, coupled to said ~~virtual private network~~ connection, wherein said router maintains a virtual router, said virtual router configurable to be dedicated to a customer, wherein the router receives packets from the ~~virtual private network~~, each packet having a VPN network ID,

wherein the router uses the VPN network ID and a dedicated virtual routing table to filter packets to the virtual router associated with the VPN network ID, wherein the virtual router adds tag information based on the VPN network ID to the packets before transmitting the packets to a virtual LAN switch, thereby enabling virtual separation of packets within the router and enabling IP addresses spaces within a private address range to overlap between different clients;

a server having a plurality of logical partitions, such that the logical partitions are maintained logically separate from each other;

a ~~virtual LAN first~~ switch, coupled to said router and to said server, said ~~virtual LAN first~~ switch providing selectable forwarding of information from said virtual router to one of said plurality of logical partitions in accordance with virtual LAN configuration information mapping the virtual router to the logical partition, said ~~virtual LAN first~~ switch using the tag information

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and LAN configuration information to forward the packets to the one of said plurality of logical partitions;

at least one volume;

a PCsecond switch, wherein said PCsecond switch provides selectable interconnection between said one of said plurality of logical partitions and said at least one volume, wherein the PCsecond switch uses a storage table to determine an appropriate one of said at least one volume, to confirm rights of the logical partition to access the determined one of said at least one volume, and to forward the packets from the logical partition to the determined one of said at least one volume;

a network management subsystem which controls operation of said router;
a server management subsystem which controls operation of said first switch;
a storage management subsystem which controls operation of said second switch; and
an integrated service management system which communicates with said network management subsystem, said server management subsystem and said storage management subsystem, wherein said integrated service management system manages an association between said network, said server and said volume.

2. *(Currently Amended)* The system of claim 1, ~~further comprising a virtual private network management system that controls operation of said router in response to receiving a request command to change system configuration, said integrated service management system analyzes said request command, determines new configurations of said subsystems and sends commands of said new configurations to related subsystems.~~

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3. (*Currently Amended*) The system of claim 2, said ~~virtual-private-network~~ management ~~system-subsystem~~ further comprising: a network interface module that receives commands from an integrated service management system, a service order processing module that analyzes and executes the commands, updates a table of ~~virtual-private-network~~ information, and sends new configuration information to said router through a control module.

4. (*Currently Amended*) The system of claim 2, said ~~virtual-service-network~~ management ~~subsystem~~ system further comprising a ~~virtual-private-network~~ table, said ~~virtual-private-network~~ table having a ~~VPN-network~~ ID that identifies a specific ~~VPN-network~~, an Address 1 and an Address 2 that hold IP addresses of two end points of said specific ~~VPN-network~~, a Protocol that specifies a ~~VPN-network~~ protocol that is used on said specific ~~VPN-network~~, an Internet that indicates whether access to public Internet is permitted, and a ~~VLAN-network~~ ID that is assigned to packets received over said specific ~~VPN-network~~.

5-7. (*Canceled*)

8. (*Currently Amended*) The system of claim [[7]]1, said integrated service management system further comprising: a network interface module that receives requests to change configuration, a service order processing module that analyzes and executes requests to change configuration received by said network interface module, updates related table cache in a service management database, and sends new configuration information using said network interface module.

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9. (Original) The system of claim 8, further comprising an operator console application that sends a request command to change service configuration to said integrated management system.

10. (Original) The system of claim 8, further comprising a customer portal application that sends a request command to change service configuration to said integrated management system.

11. (Original) The system of claim 8, said integrated service management system further comprising a service configuration table, said service configuration table having destination information.

12. (Original) The system of claim 8, said integrated service management system further comprising a server table, said server table having a server identification, an address, a physical server identifier, a virtual LAN identification, a logical partition (LPAR) identification, a host bus adaptor (HBA) identification, an application identification, an operating system identifier, and a CPU information.

13. (Original) The system of claim 8, said integrated service management system further comprising a storage table, said storage table having a volume identifier, a port identifier, an allowed host bus adapter(s) (HBAs) identifier, a capacity identifier, and an access information.

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14. (Original) The system of claim 8, said integrated service management system further comprising a service mapping table, said service mapping table having a customer identifier, a network identifier, a server identifier, and a volume identifier.

15. (Original) The system of claim 8, said integrated service management system further comprising a service status table, said service status table having a customer identifier, a network status, a server status, and a volume status.

16-20. (Canceled)

21. (New) A system, comprising:

a connection to a network;

a router, coupled to said network connection;

a server having a plurality of logical partitions, such that the logical partitions are maintained logically separate from each other;

a first switch, coupled to said router and to said server, said first switch providing selectable forwarding of information from said router to one of said plurality of logical partitions;

at least one volume;

a second switch, wherein said second switch provides selectable interconnection between said one of said plurality of logical partitions and said at least one volume;

a network management subsystem which controls operation of said router;

a server management subsystem which controls operation of said first switch;

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a storage management subsystem which controls operation of said second switch; and
an integrated service management system which communicates with said network management subsystem, said server management subsystem and said storage management subsystem, wherein said integrated service management system manages an association between said network, said server and said volume

22. (New) The system of claim 21, in response to receiving a request command to change system configuration, said integrated service management system analyzes said request command, determines new configurations of said subsystems and sends commands of said new configurations to related subsystems.

23. (New) The system of claim 22, said network management subsystem further comprising: a network interface module that receives commands from an integrated service management system, a service order processing module that analyzes and executes the commands, updates a table of network information, and sends new configuration information to said router through a control module.

24. (New) The system of claim 22, said network management subsystem further comprising a network table, said network table having a network ID that identifies a specific network, an Address 1 and an Address 2 that hold IP addresses of two end points of said specific network, a Protocol that specifies a network protocol that is used on said specific network, an Internet that indicates whether access to public Internet is permitted, and a network ID that is assigned to packets received over said specific network.

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25. (New) The system of claim 21, said integrated service management system further comprising: a network interface module that receives requests to change configuration, a service order processing module that analyzes and executes requests to change configuration received by said network interface module, updates related table cache in a service management database, and sends new configuration information using said network interface module.

26. (New) The system of claim 25, further comprising an operator console application that sends a request command to change service configuration to said integrated management system.

27. (New) The system of claim 25, further comprising a customer portal application that sends a request command to change service configuration to said integrated management system.

28. (New) The system of claim 25, said integrated service management system further comprising a service configuration table, said service configuration table having destination information.

29. (New) The system of claim 25, said integrated service management system further comprising a server table, said server table having a server identification, an address, a physical server identifier, a virtual LAN identification, a logical partition (LPAR) identification, a host bus adaptor (HBA) identification, an application identification, an operating system identifier, and a CPU information.

30. (New) The system of claim 25, said integrated service management system further comprising a storage table, said storage table having a volume identifier, a port identifier,

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an allowed host bus adapter(s) (HBAs) identifier, a capacity identifier, and an access information.

31. (New) The system of claim 25, said integrated service management system further comprising a service mapping table, said service mapping table having a customer identifier, a network identifier, a server identifier, and a volume identifier.

32. (New) The system of claim 25, said integrated service management system further comprising a service status table, said service status table having a customer identifier, a network status, a server status, and a volume status.